

WA-15

Brookline's participation in the Fossil Fuel Free 10 Community Demonstration Project

**Warrant Article 15, Sponsored by the
Planning Department**

**UPDATE FOR THE ADVISORY COMMITTEE
Friday May 5, 2023**

Lisa Cunningham and Wendy Stahl

The world is on the brink of climate calamity, definitive U.N. climate report warns



“In order to avoid catastrophic climate failure, we must stop using fossil fuels immediately.” We must reduce our carbon emissions by 50% by the year 2030 - in SEVEN YEARS.

**Background: Fall 2019: Brookline Passes WA-21
Prohibiting new fossil fuel infrastructure in
new and major construction by a vote of 211-3**

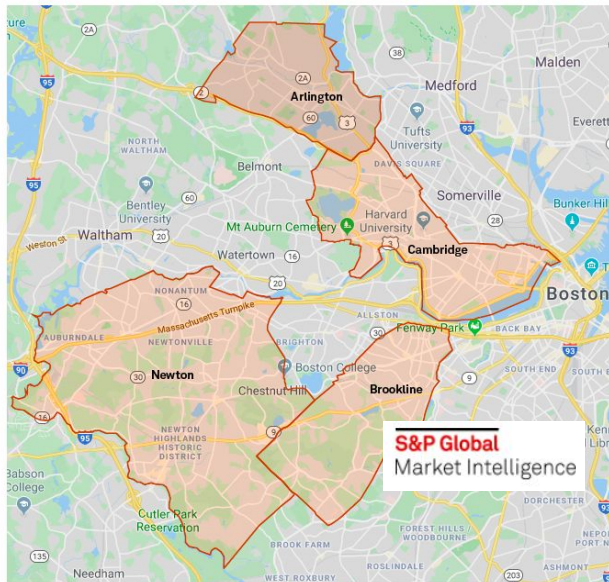


2020-2022: Brookline's bylaw is disallowed by the AG , but communities follow Brookline and pass Home Rule Petitions

Brookline's ban on natural gas connections spurs other municipalities to consider the idea

By **Jon Chesto** Globe Staff, December 11, 2019, 5:40 p.m.

Boston suburbs advancing bans on new natural gas hookups in buildings



As of Jan. 8, 2020.
Credit: Cat Weeks
Source: Google Maps, Map data ©2019



2022 MA Climate Bill - finally we can mandate **FOSSIL FUEL FREE!**

2022 MA Climate Bill creates the **Ten Community Fossil Fuel Free Demonstration Program**

Municipal Fossil Fuel Free Building Demonstration Program

DOER demonstration enabling cities and towns to adopt and amend general or zoning ordinances or by-laws to require new building construction or major renovation projects to be fossil fuel-free.

An [Act Driving Clean Energy and Offshore Wind](#) (St. 2022, c. 179, § 84) requires the Massachusetts Department of Energy Resources (DOER) to establish a demonstration project in which cities and towns may adopt and amend general or zoning ordinances or by-laws that require new building construction or major renovation projects to be fossil fuel-free. The purpose of 225 CMR 24.00 is to establish the framework, requirements, and timeline for cities and towns to participate in the DOER's Municipal Fossil Fuel Free Building

To become a FFF community, we need to:

- ✓ 1. Pass & file a fossil fuel prohibition Home Rule Petition (done, 2020)
- 2. **Have a valid current Fossil Fuel Free bylaw**
- ✓ 3. Pass the Specialized Energy Code (done, January 2023)
- ✓ 4. Meet housing requirements
 - Meet the 40B 10% affordable housing threshold (as of 12/2020) **Brookline meets this requirement**



**FOSSIL FUEL FREE
DEMONSTRATION
PROJECT**

**SPECIALIZED CODE
("opt-in" - over 17%
adopted since Jan. 2023)**

**STRETCH CODE ("Green"
communities - 300 out of 351)
IECC 2021 plus amendments**

**BASE CODE (IECC 2021 - every MA
community)**

The MA Building Code Pyramid – *from base to best*

Poor air quality from burning fossil fuels is associated with higher rates of disease and death throughout the Commonwealth



Gas stoves leak even when not turned on .

Gas stoves are attributable to 15% of childhood asthma, equal to having a **smoker** in the home.

Gas stoves emit dangerous levels of nitrogen dioxide, methane, carbon monoxide, formaldehyde and benzene and produce air quality that is not allowed outdoors.

The electrical grid is NOT a problem.

1. **This bill affects 0.25 to 0.5% of building emissions per year - only new and major construction. It only prevents us from digging the hole deeper.**
2. **Brookline Basic Green** <https://brooklinegreen.com/> **is 90% renewable (going to 100% in 2024) and currently 63% the cost of Eversource.**
3. **New construction adds electrical load to the grid (regardless of heating systems), but heat pumps are 2 to 5 times more efficient than conventional appliances.**
4. **If adopted by the first 10 communities, which comprise less than 6% of the State's population, the effect on the grid would be 0.03% per year - in other words, negligible**
5. **If adopted by ALL communities in MA, the effect on the grid would be 0.5% per year.**
6. **Resource adequacy planned to double by 2050.** Planning by the regional electric grid operator, ISO New England, envisions doubling the region's current 25 gigawatt (GW) capacity to 50 GW by 2050.
7. **Additional supply already in the queue.** Of the 25 GW of additional supply needed regionally, 10 GW will be here by 2035. *That is the business as usual scenario, and it involves very little change to our current transmission grid.*
8. **The cost of renewable energy has been consistently and dramatically dropping for several decades.** Meanwhile, fossil fuel prices are unstable and are projected to continue to increase, leaving people vulnerable to unpredictable energy bills.
9. **See full FAQ** [here](#).

Fossil Fuel Free DOER Demonstration Project: Prioritized Communities

First Ten communities are:

1. Arlington - Fall 2023 TM
2. **Lexington** - *passed Spring TM with a 147-1 vote*
1. **Brookline** - **Spring 2023 TM**
2. **Acton** - *passed Spring TM*
3. Concord - Fall 2023 TM
4. Cambridge (city)
5. **Lincoln** - *passed Spring TM with a near-unanimous vote (3 no's)*
6. Newton (city)
7. West Tisbury - *plans to withdraw b/c unable to meet AH requirements*
8. **Aquinnah** - **Spring 2023 TM**

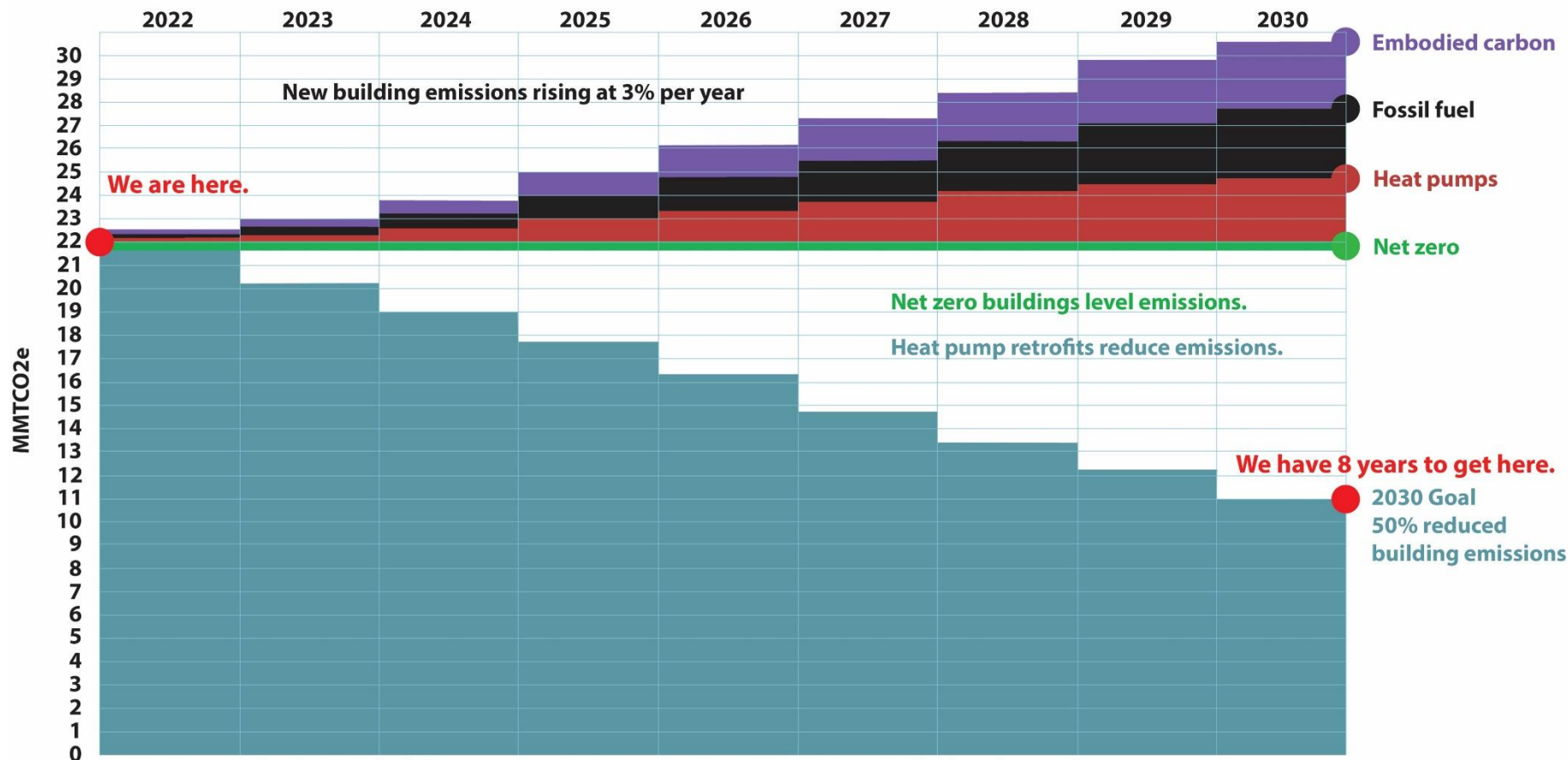
PLUS the following who are now competing to get in:

1. Somerville
 2. Boston
 3. Salem
 4. Northampton
- ...and more in the pipeline**

Net Zero Stretch Code & Retrofits Needed to Meet 2030 Goal

Fossil Fuel Free is imperative but still not enough - we need NET ZERO CONSTRUCTION

Net Zero Buildings & Heat Pump Retrofits Are Needed to Meet the 2030 Goal of 50% Emissions Reduction



NOTE: Pre-pandemic 2019 building sector emissions were 25.5 MMTCO₂e, 16% higher than today.

This chart was included in a March 2022 letter signed by elected and appointed representatives from 40% of the State's population, as well as many professional and climate organizations, INCLUDING mayors from 9 major MA cities, and all of Brookline's Select Board and several Town Meeting members active in Brookline's climate legislation.

Passage of the Specialized Code: Update as of 5.3.23 Managed by DOER (Department of Energy Resources)

The Opt-In Specialized Code, **designed to provide protections for communities** (although still not Fossil Fuel Free or Net-Zero, as it was supposed to be), has been passed in the following **15 communities**, many of those with unanimous or near-unanimous votes, **representing over 17% of the State's population. At least another 20** communities (so far) are expected to pass the Specialized Code this year - mostly this Spring - bringing the total to **22% of the State's population** .

1. Watertown 1.10.23 (July 2023 adoption)
2. Brookline 1.10.23 (July 2023 adoption)
3. Cambridge 1.23.23 (July 2023 adoption)
4. Somerville 1.27.23 ((July 2023 adoption)
5. Newton 1.27.23 (January 2024 adoption)
6. Lincoln 3.18.23 (January 2024 adoption)
7. Lexington - 3.26.23 (January 2024 adoption)
8. Boston 4.5.23 (January 2024 adoption)
9. Wellesley 4.24.23 (January 2024 adoption)
10. Arlington 4.24.23 (January 2024 adoption)
11. Truro 4.25.23 (January 2024 adoption)
12. Sherborn 4.25.23 (January 2024 adoption)
13. Wellfleet 4.28.23 (January 2024 adoption)
14. Concord 4.30.23 (January 2024 adoption)
15. Acton 5.2.23 (January 2024 adoption)

Thank you for your time.

Questions?